



**10 OCT 1990**

**COMMANDANT INSTRUCTION 6710.15D**

**Subj: Antimotion Sickness Medications**

1. **PURPOSE.** This instruction provides information and guidance on using currently available antimotion sickness medications.
2. **DIRECTIVES AFFECTED.** Commandant Instruction 6710.15C is canceled.
3. **BACKGROUND.** Motion sickness is apt to occur when changes in acceleration continuously stimulate receptors in the inner ear. Stimulation beyond what an individual is accustomed to can result in the classic symptoms of malaise, nausea, and vomiting. This undesirable stress factor may not only contribute to mishap by crippling the efforts of our people during rescue attempts, but may also impair their performance during routine operations as well. Medications are commonly used to combat motion sickness. These medicines, however, are not without undesirable side effects (most importantly, mild sedation) which might interfere with performance of duties. The symptoms of motion sickness, however, often result in a greater impairment of performance, and in this case the medications may be beneficial. The decision to prescribe or use medication must always take into account risk versus benefit.
4. **DISCUSSION.**
  - a. **General.** The effectiveness of motion sickness drugs will vary with individual susceptibility, the duration and intensity of the motion, the interval between taking the drug and the onset of motion, and dosage. Since people differ in their responsiveness to the commonly used drugs or their combinations, failure to control motion sickness with one drug or combination does not mean that another

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4. a. (cont'd) regimen will not be successful. Watchstanders, as well as those working around hazardous machinery, should be especially aware of the potential mild sedative side effects of the medication. With the exception of a limited use for the promethazine-ephedrine combination while deployed (see para. 4.d. below), aviation personnel may not use antimotion sickness medication, because of the potential sedative side effects. These medications must not be taken within 12 hours after ingestion of alcohol and should be avoided by pregnant members. These medicines should be prescribed initially by health services personnel to ensure that the patient is fully informed of directions for use, precautions, and possible side effects.

b. Behavioral Control. Voluntary head movement while undergoing accelerations due to aircraft, ship, or motor vehicle motion introduces an additional acceleration input to the inner ear receptors. This can have the effect of further increasing motion sickness symptoms. Keeping voluntary head movement (turning or looking up or down) to a minimum during sea, air, or auto travel is an effective non-drug method of combatting motion sickness.

c. Meclizine (Bonine, Antivert). For many years this medication has been a mainstay for the prevention of motion sickness. It is less sedating than Dramamine. In the recommended dosage it should prove effective for the majority of persons.

(1) Meclizine dose: 1-2 tablets (25 mg) one hour prior to departure, repeating this dose every 12 to 24 hours as needed.

(2) Side-effects: sedation, blurred vision, and dry mouth.

(3) Federal Supply System information:

Meclizine 25 mg chewable tablets  
NSN: 6505-00-926-2111 U/I: BT (100's)

d. Promethazine (Phenergan) and Ephedrine. Adding ephedrine to commonly used motion sickness medications has been shown to increase their effectiveness. This is especially true of the combination of promethazine and ephedrine which, in addition to working well, has been shown to cause relatively few side-effects aside from occasional mild sedation or aggravation of existing hypertension. The following are guidelines for the use of the promethazine-ephedrine combination by Coast Guard personnel.

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4. d. (1) The recommended oral dosage is 25 mg of promethazine hydrochloride and 25 mg of ephedrine sulfate. This combination should be taken one to two hours prior to motion stress and every six hours as needed thereafter.

(2) Helicopter crewmembers may use the promethazine-ephedrine combination during their first 48 hours aboard ship. After two days, most aviation personnel should have acclimated to normal levels of ship motion stress. To remain in a flying status while using this regimen, it must have been prescribed by a flight surgeon. Therefore, deploying crews should request prescriptions prior to departing their air stations. Pilots using this combination may not fly solo missions during the period of its use and for 12 hours after the last dose. As a general rule, a pilot medicated for motion sickness should not sit in the right seat, not control the aircraft under 300 feet, and not assume the role of aircraft commander. On first use of this combination, there should be, operations permitting, a six-hour trial on the medication prior to flying. Aircrew feeling impaired from seasickness symptoms should ground themselves.

(3) Both medications are available through the Federal Supply System with the following stocking information:

(a) Promethazine Hydrochloride Tablets, 25 mg, 1000's  
NSN: 6505-00-584-3277 U/I: BT

(b) Ephedrine Sulfate Capsules, 25 mg, 500's  
NSN: 6505-00-117-4912 U/I: BT

- e. Scopolamine. The scopolamine Trans-Dermal Therapeutic System (TTS) has proven to be one of the most effective drugs available for preventing motion sickness. Despite controlled release, studies have shown greater variability of side effects with TTS, when compared to oral use of this drug. Because of this element of unpredictability, additional guidelines are provided for its use.

(1) The patch is placed behind either ear four hours before motion sickness prevention will be needed. The medication is slowly absorbed through the skin and lasts three days.

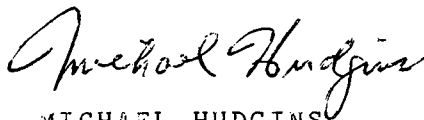
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4. e. (2) Common side-effects (which can last up to 24 hours after discontinuation) include dry mouth, blurred vision (usually near vision), pupil paralysis (light sensitivity), and drowsiness. Uncommon but potentially severe side-effects include disorientation, hallucinations, and urinary retention.
- (3) Precautions: The medication should not be given to anyone with a history of glaucoma or urinary tract obstruction symptoms. Concurrent use of injectable antimotion sickness medications with transcutaneous scopolamine may increase risk of adverse reaction.
- (4) This medication should be prescribed initially by a medical officer, if available. It should be used only after other methods of motion sickness control have proven unsatisfactory. When prescribed, the health record entry will reflect that no contraindications to use exist, potential adverse reactions have been discussed, and other methods were not satisfactory. On refill or renewal the provider must document that there have been no significant side effects.
- (5) Aviation personnel are not allowed to use scopolamine and remain in flying status. Aviation personnel using scopolamine will be grounded for an additional 24 hours after its use is discontinued.
- (6) Personnel in direct control of vessels or SAR boats, e.g., SAR boat coxswains, officer-of-the-day, helmsmen, lookouts, etc., may use scopolamine only after a 36-hour trial of use during which they experience no significant side-effects which would tend to make them unsafe as bridge watchstanders. The result of this trial should be documented in the health record by a medical officer, health services technician, or commanding officer.
- (7) Federal Supply System information:
- Scopolamine patches, 1.5 mg  
NSN: 6505-01-138-5692  
U/I: PG (12 patches)

- f. Duration of Treatment. Antimotion sickness medication is intended only to help personnel adapt to their moving environment and get their "sea legs." It is not intended to be used for longer than 10 to 15 days at a time. Personnel that require continuous medication or have symptoms poorly controlled should be evaluated for chronic motion sickness.

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5. ACTION. Area and district commanders, commanders of maintenance and logistics commands, unit commanding officers, and Commander, Coast Guard Activities Europe shall ensure the widest possible dissemination of the contents of this instruction.



MICHAEL HUDGINS

Chief, Office of Health and Safety





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